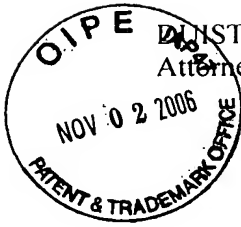


IN THE DRAWING(S):

The attached seven (7) sheets of drawings are formal versions of Figures 1-9. These sheets replace the original seven (7) sheets showing Figures 1-9.

Attachment: Replacement Sheets.



REMARKS

By this Amendment, Applicant has amended claims 1, 3, 4, 10, 22, and 24-31 to further recite the invention without the intention of narrowing the claims. Applicant submits that no new matter has been introduced. As such, claims 1-12, 14-20, and 22-32 are currently presented for examination.

In the Office Action of August 8, 2006, the Examiner required the submission of formal drawings. Applicant submits formal drawings herewith for approval by the Examiner.

Claims 1-12, 14, and 22-32 were rejected under 35 U.S.C. § 102(b) based on U.S. Patent No. 4,907,021 to Yabu (“Yabu”) or, in the alternative, under 35 U.S.C. § 103(a) based on Yabu in view of U.S. Patent Application Publication No. US 2006/0165406 to Makii (“Makii”). The rejections are respectfully traversed.

Claim 1 is patentable over Yabu since the cited portions of Yabu do not disclose, teach, or suggest a lithographic optical system comprising, *inter alia*, “a linear electric motor and at least one gas bearing within the first chamber, the linear electric motor and the at least one gas bearing being configured to contactlessly move the moveable lens.” In the embodiment shown in Figure 1 of Yabu, an air pressure supply 8 is used to move the lens barrel 4b. To control the movement of the lens barrel 4b, the barrel 4b makes contact with resilient means 9, which act to support the barrel 4b against the pressure applied thereto from the supply 8 and passage 7. Accordingly, the embodiment shown in Figure 1 of Yabu does not disclose, teach, or suggest a linear electric motor. Further, the embodiment in Figure 1 of Yabu does not disclose, teach, or suggest a linear electric motor and at least one gas bearing being configured to contactlessly move the moveable lens, as claimed.

In the embodiment shown in Figure 2 of Yabu, a piezoelectric device 30 is used to displace the lens barrel 4b by applying a direct force against the barrel 4b. A piezoelectric device is not a linear electric motor as would be understood by one of skill in the art and, further, the embodiment shown in Figure 2 of Yabu does not move a lens contactlessly. Accordingly, the embodiment shown in Figure 2 of Yabu does not disclose, teach, or suggest a linear electric motor nor a linear electric motor and at least one gas bearing being configured to contactlessly move the moveable lens, as claimed.

In the embodiment shown in Figure 3 of Yabu, an inflatable diaphragm 40 is used to displace the lens barrel 4b by expanding upon a pressure being supplied and directly pushing the barrel 4b. The inflatable diaphragm 40 is clearly not a linear electric motor, as claimed. Further, the embodiment in Figure 2 of Yabu does not disclose, teach, or suggest a linear

electric motor and at least one gas bearing being configured to contactlessly move the moveable lens, as claimed.

The claimed invention overcomes the deficiencies in the prior art and has as a possible advantage the precision of a linear electric motor and/or reduced contamination due to contactlessly moving a moveable lens.

Accordingly, Applicant respectfully submits that claim 1 is patentable over the cited portions of Yabu.

Makii does not cure the deficiencies of Yabu. The cited portions of Makii do not teach, disclose, or suggest a lithographic optical system comprising, *inter alia*, “the linear electric motor and the at least one gas bearing being configured to contactlessly move the moveable lens.” There is nothing in the cited portions of Makii to suggest that the device is configured to contactlessly move a moveable lens, as claimed. As a result, claim 1 is patentable over Yabu and Makii, alone or in combination.

Claims 2-12, 14, and 22-24 are patentable over Yabu and Makii, alone or in combination, at least by virtue of their dependency from claim 1 and for the additional features recited therein.

Claim 25 is patentable over Yabu since the cited portions of Yabu do not disclose, teach, or suggest a lithographic optical system comprising, *inter alia*, “a linear electric motor and at least one gas bearing within the first chamber, the linear electric motor and the at least one gas bearing being configured to contactlessly move the moveable lens.” As similarly discussed above, the cited portions of Yabu do not disclose, teach, or suggest a linear electric motor or a linear electric motor and at least one gas bearing being configured to contactlessly move the moveable lens, as claimed, and Makii does not cure the deficiencies of Yabu. As a result, claim 25 is patentable over Yabu and Makii, alone or in combination.

Claim 26 is patentable over Yabu and Makii, alone or in combination, at least by virtue of its dependency from claim 25 and for the additional features recited therein.

Claim 27 is patentable over Yabu since the cited portions of Yabu do not disclose, teach, or suggest a lithographic apparatus comprising, *inter alia*, “a linear electric motor and at least one gas bearing within the first chamber, the linear electric motor and the at least one gas bearing being configured to contactlessly move the moveable lens.” As similarly discussed above, the cited portions of Yabu do not disclose, teach, or suggest a linear electric motor or a linear electric motor and at least one gas bearing being configured to contactlessly

move the moveable lens, as claimed, and Makii does not cure the deficiencies of Yabu. As a result, claim 27 is patentable over Yabu and Makii, alone or in combination.

Claim 28 is patentable over Yabu and Makii, alone or in combination, at least by virtue of its dependency from claim 27 and for the additional features recited therein.

Claim 29 is patentable over Yabu since the cited portions of Yabu do not disclose, teach, or suggest a lithographic apparatus comprising, *inter alia*, “a linear electric motor and at least one gas bearing within the first chamber, the linear electric motor and the at least one gas bearing being configured to contactlessly move the moveable lens.” As similarly discussed above, the cited portions of Yabu do not disclose, teach, or suggest a linear electric motor or a linear electric motor and at least one gas bearing being configured to contactlessly move the moveable lens, as claimed, and Makii does not cure the deficiencies of Yabu. As a result, claim 29 is patentable over Yabu and Makii, alone or in combination.

Claim 30 is patentable over Yabu and Makii, alone or in combination, at least by virtue of its dependency from claim 29 and for the additional features recited therein.

Claim 31 is patentable over Yabu since the cited portions of Yabu do not disclose, teach, or suggest a lithographic apparatus comprising, *inter alia*, “a linear electric motor and at least one gas bearing within the first chamber, the linear electric motor and the at least one gas bearing being configured to contactlessly move the moveable lens.” As similarly discussed above, the cited portions of Yabu do not disclose, teach, or suggest a linear electric motor or a linear electric motor and at least one gas bearing being configured to contactlessly move the moveable lens, as claimed, and Makii does not cure the deficiencies of Yabu. As a result, claim 31 is patentable over Yabu and Makii, alone or in combination.

Claim 32 is patentable over Yabu and Makii, alone or in combination, at least by virtue of its dependency from claim 31 and for the additional features recited therein.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-12, 14, and 22-32 under 35 U.S.C. § 102(b) based on Yabu and, in the alternative, under 35 U.S.C. § 103(a) based on Yabu in view of Makii are respectfully requested.

Claims 15-20 were rejected under 35 U.S.C. § 103(a) based on Yabu or, in the alternative, based on Yabu in view of Makii and further in view of U.S. Patent No. 6,341,006 to Murayama et al. (“Murayama”). The rejections are respectfully traversed.

As discussed above, claim 1 is patentable over Yabu and Makii, alone or in combination, because the cited portions of Yabu and/or Makii do not teach, disclose, or suggest a lithographic optical system comprising, *inter alia*, “a linear electric motor and at

least one gas bearing within the first chamber, the linear electric motor and the at least one gas bearing being configured to contactlessly move the moveable lens.” The Examiner cites Murayama for the teaching of multiple chambers. Clearly, Murayama does not cure the deficiencies of Yabu and Makii. As a result, claim 1 is patentable over Yabu, Makii, and Murayama, alone or in combination.

Claims 15-20 are patentable over Yabu, Makii, and Murayama, alone or in combination, at least by virtue of their dependency from claim 1 and for the additional features recited therein.

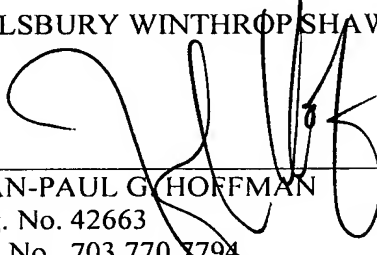
Accordingly, reconsideration and withdrawal of the rejections of claims 15-20 under 35 U.S.C. § 103(a) based on Yabu and, in the alternative, based on Yabu in view of Makii and further in view of Murayama are respectfully requested.

Applicant has addressed all the Examiner’s rejections and respectfully submits that the application is in condition for allowance. A notice to that effect is earnestly solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975 under Order Number 081468-0308928. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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